

Table of Contents

Chapter I – Purpose and Need for Project

A. Project Description.....	I-1
1. Project History	I-1
2. Program Data	I-3
3. Description of Existing Transportation Facilities	I-3
B. System Linkage	I-4
C. Overview of Purpose and Need.....	I-5
1. Traffic Safety	I-5
2. Roadway Capacity	I-6
3. Increased Mobility	I-7
4. Increased Economic Development Opportunities	I-7

Chapter II – Alternatives Considered

A. No-Build Alternative	II-1
1. Mass Transit and Intelligent Transportation Systems	II-1
B. Build Alternatives	II-2
1. Design Criteria	II-2
2. Preliminary Build Alternatives	II-2
3. Final Build Alternatives	II-3
C. Construction Cost Estimates	II-4
D. Traffic Circulation.....	II-5
E. Alternatives Analysis.....	II-5
1. Evaluation	II-5
2. Conclusions	II-8

Chapter III – Affected Environment and Impacts of the Proposed Action

A. Social Impacts	III-1
1. Neighborhood and Community Cohesion	III-1
2. Changes in Traffic Patterns.....	III-1
3. Safety Issues.....	III-2
4. Public & Semi-Public Facilities, Parks and Recreation Areas	III-2
5. Pedestrian and Bicyclist Considerations	III-3
6. Demographics and Social Characteristics.....	III-4
7. Environmental Justice and Title VI Considerations	III-7
B. Economic Impacts	III-7
C. Land Use Impacts.....	III-7
1. Land Use Planning	III-7
2. Land Use Planning Impacts	III-9
D. Farmland Impacts	III-9
E. Right-of-Way Impacts	III-9
1. Property Impacts	III-10
F. Geology.....	III-11
1. General.....	III-11
2. Mining.....	III-11
G. Water Resources Impacts	III-11
1. Streams	III-12
2. Wetlands	III-13

3. Compensatory Mitigation	III-14
H. Water Quality Impacts	III-14
1. Surface Water Quality	III-14
2. Surface Water Quality Impacts.....	III-15
3. Groundwater Quality Impacts.....	III-16
I. Floodplain Impacts	III-16
1. Introduction	III-16
2. Floodplain Encroachment	III-17
3. Flooding Risks.....	III-17
4. Impacts on Natural and Beneficial Floodplain Values	III-18
5. Support of Probable Incompatible Floodplain Development	III-18
6. Measures to Minimize Floodplain Impacts and Measures to Restore and Preserve the Natural and Beneficial Floodplain Values.....	III-18
7. Only Practicable Alternative Finding	III-18
J. Biological Resource Impacts	III-19
1. Forest Communities	III-19
2. High Quality Natural Communities	III-20
3. Wildlife.....	III-20
4. Threatened and Endangered Species	III-21
K. Cultural Resources	III-22
1. Introduction	III-22
2. Previous Investigations	III-22
3. Archeological Survey	III-24
4. Architectural Survey	III-24
5. Results	III-25
6. Eligibility Criteria.....	III-25
7. Summary and Recommendations	III-26
L. Hazardous Material Impacts	III-26
1. Survey Methodology	III-26
2. Potential Hazardous Waste Sites.....	III-26
3. Impacts.....	III-27
M. Air Quality Impacts	III-28
1. Existing Air Quality	III-28
2. Future Air Quality	III-29
N. Noise Impacts.....	III-29
1. Noise Abatement Criteria	III-29
2. Traffic Noise Modeling	III-30
3. Construction Noise	III-32
4. Undeveloped Lands	III-32
5. Conclusion	III-33
O. Visual and Aesthetic Impacts	III-33
1. Existing Visual Environment.....	III-33
2. Visual Impacts.....	III-33
3. Aesthetic Considerations / Visual Enhancements.....	III-34
P. Permits	III-34
1. Regulatory Permits.....	III-34
2. Construction Permits.....	III-35
Q. Construction Impacts.....	III-35
1. Waste Disposal	III-35
2. Water Quality	III-36
3. Air.....	III-37

4. Noise	III-37
5. Vibration	III-37
6. Traffic Impacts	III-37
7. Utility Relocation	III-38
R. Secondary and Cumulative Impacts	III-38
S. References	III-39

Chapter IV – Comments and Coordination

A. Public Involvement.....	IV-1
B. Agency Coordination	IV-1
1. Agency Communications	IV-1
2. Project Meetings	IV-2
C. Public Review	IV-4
1. Official Comment Period	IV-4
2. Publicity	IV-4
3. Public Hearing	IV-4
4. Public Comments and Responses	IV-5
5. Resource Agency Comments and Responses.....	IV-9

List of Figures**Chapter I – Purpose and Need for Project**

I-1 Regional Map.....	I-1
I-2 Location Map	I-2

List of Tables**Chapter I – Purpose and Need for Project**

I-1 Existing Roadways.....	I-4
I-2 Existing Bridges	I-4
I-3 Accident Data.....	I-5
I-4 Two-Way Peak Hour Volume.....	I-6
I-5 Intersection LOS (PM Peak Hour)	I-7

Chapter II – Alternatives Considered

II-1 Proposed Design Criteria.....	II-2
II-2 Cost Estimate of Alternatives	II-4
II-3 Forecasted Two-Way Peak Hour Volume.....	II-5
II-4 Current and Forecasted LOS	II-5
II-5 Flintlock Road Evaluation Matrix.....	II-6

Chapter III – Affected Environment and Impacts of the Proposed Action

III-1 Change In 2030 PM Peak Hour Traffic at Adjacent Interchanges with Flintlock Overpass	III-1
III-2 Population, Gender, Age.....	III-4
III-3 Racial Characteristics (2000).....	III-5
III-4 Housing Characteristics (2000).....	III-6
III-5 Income and Poverty (2000).....	III-6
III-6 Change in 2030 PM Peak Hour Traffic User Benefits.....	III-7

III-7	Property Acquisition and Estimated Right-of-Way Costs	III-10
III-8	Stream Crossing Impacts.....	III-13
III-9	Estimated 100-Year Floodplain Encroachments.....	III-17
III-10	Potential Hazardous Waste Sites within Study Corridor	III-27
III-11	Missouri and National Ambient Air Quality Standards	III-28
III-12	Noise Abatement Criteria Hourly A-Weighted Sound Level-Decibels (dBA).....	III-30
III-13	Design Hour Noise Levels, dBA L _{eq} (h).....	III-31
III-14	Construction Equipment Sound Levels.....	III-32

List of Exhibits

(Exhibits are located at the end of each respective Chapter.)

Chapter I – Purpose and Need for Project

Exhibit I-1 Existing Typical Sections

Chapter II – Alternatives Considered

Exhibit II-1 Study Corridor & Environmental Considerations
 Exhibit II-2 Proposed Typical Sections
 Exhibit II-3 Conceptual Alignment
 Exhibit II-4 50mph Alternative
 Exhibit II-5 Initial 40mph Alternative
 Exhibit II-6 Alternative A – Standard Intersections
 Exhibit II-7 Alternative B – Roundabout at NE 76th St.
 Exhibit II-8 Alternative C – Two Roundabouts

Chapter III – Affected Environment and Impacts of the Proposed Action

Exhibit III-1 Existing Land Use
 Exhibit III-2 Future Land Use
 Exhibit III-3 Water Resources
 Exhibit III-4 Water Resources – Streams 1 & 2, NWI Wetland 1
 Exhibit III-5 Water Resources – Streams 3a & 3b, NWI Wetland 2
 Exhibit III-6 Water Resources – Stream 4
 Exhibit III-7 Water Resources – Streams 5, 6 & 7, NWI Wetland 3

APPENDIX A – Public Involvement

APPENDIX B – Correspondence